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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,702	09/25/2003	Manabu Ohga	CFA00008US	9235

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CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION
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EXAMINER

RODRIGUEZ, LENNIN R

ART UNIT	PAPER NUMBER
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2625

MAIL DATE	DELIVERY MODE
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10/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/672,702	Applicant(s) OHGA, MANABU	
	Examiner LENNIN R. RODRIGUEZ	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 7/18/2008 have been fully considered but they are not persuasive. Applicant's argument regarding "the Zeng reference does not teach that the determined output color varies depending on whether "when the black-printing compensation is applied and the input color data indicates the simple black color" and 'when the black-printing compensation is not applied or when the black- printing compensation is applied and the input color data does not indicate the simple black color.' Furthermore, the Zeng reference does not teach determining the simple black color as the output color when the black-printing compensation is applied and the input color data indicates the simple black color" has been fully considered, in response " in Figs. 3 and 5 and paragraph [0034]-[0035] it is clear the actions to be taken in the case of any result of the determination of lightness. For example in Fig. 5, 108 and 110 are applied when black-printing compensation is needed, either to increase or reduce the amount of black ink and 112 reflects no need to use compensation due to the fact that the relationship is one-to-one."

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set

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forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/18/2008 has been entered.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Zeng (US Publication 2002/0159081).

(1) regarding claim 1:

Zeng '081 discloses an information processing method for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing method comprising:

determining a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21);

determining, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates a simple black color (paragraph [0034], lines 4-7, where "managing black separated from color data" is being interpreted as simple black color), output color data for the simple black color having a lightness

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level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels, where K' is simple black), based on the determined relationship between lightness levels and black color (paragraph [0034], lines 14-21); and

determining (118 in Fig. 3), when the black-printing compensation is not applied (112 in Fig. 5, where the input to output relationship is one-to-one) or when the black-printing compensation is applied and the input color data does not indicate the simple black color, output color data for a non simple black color (paragraph [0036], where an output black (K') determination step is performed after determination of the lightness levels and the output is C'M'Y'K').

(2) regarding claim 2:

Zeng '081 further discloses wherein the input color data is converted into the output color data via a device-independent color space by using a source profile and a destination profile (paragraph [0029], lines 10-18 and paragraph [0030], lines 8-10, where the input profile is the source profile and the output profile the destination profile);

wherein the relationship between lightness levels and black color is determined by using the destination profile (paragraph [0030], lines 10-14); and

wherein when the input color data indicates a simple black color (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color), lightness information is determined by converting the input color data into color data represented by a device-dependent color space by using the source

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profile (paragraph [0034], [0035] and [0036], where the lightness information is determined in the conversion of input color data into output color data and the PCS' is being interpreted as the device-dependent since it is printer-specific), and the output color data for a simple black color is determined from the lightness information by using the relationship between lightness levels and black color (paragraph [0034] and [0035], where the output K' values is determined by the lightness and black relationship).

(3) regarding claim 3:

Zeng '081 further discloses wherein the input data and the output data are either simple black colors (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color) or achromatic.

(4) regarding claim 6:

Zeng '081 further discloses a computer-readable storage medium having stored thereon a program for implementing an information processing method for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0041], lines 10-15), said program implementing:

determining a relationship between lightness levels and black color based on characteristics of the output device (paragraph [0034] lines 8-21); and

determining, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates a simple black color (paragraph [0034], lines 4-7), output color data for the simple black color having a lightness level

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equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21); and

determining (118 in Fig. 3), when the black-printing compensation is not applied (112 in Fig. 5, where the input to output relationship is one-to-one) or when the black-printing compensation is applied and the input color data does not indicate the simple black color, output color data for a non simple black color (paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels).

(5) regarding claim 8:

Zeng '081 further discloses an information processing apparatus for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing apparatus comprising:

a first section arranged to determine a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

a second section arranged to determine, when a black-printing compensation is applied (paragraph [0035], where the K values are processed and its being interpreted as black-printing compensation) and the input color data indicates black color

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(paragraph [0034], lines 4-7), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21), and to determine (118 in Fig. 3), when the black-printing compensation is not applied (112 in Fig. 5, where the input to output relationship is one-to-one) or when the black-printing compensation is applied and the input color data does not indicate the simple black color, output color data for a non simple black color (paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Regarding application US 2003/0025924, Lammens teaches "A direct device-space-to-device-space transform adjusts the amount of actual black ink, to avoid highlight and midtone granularity in incremental printing--but with no need for translation into perceptual space. If the amount of black ink specified in the input data for a particular color is very small or very large, then that specified color is passed through the transform without substantial change. Thereby the amount of actual black ink and other colorants is held as nearly as practical at levels dictated by device-space input specifications while minimizing visible granularity. Replacement behavior is chosen to smoothly blend between different kinds of operation in different tonal ranges"

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(see abstract). Regarding application US 4,590,515 and US 4,551,751, Wellendorf teaches "Given color reduction depending on tone in four-color printing, wherein the color components of the chromatic printing inks yellow, magenta and cyan are reduced and the amount of black printing ink is increased to compensate for such reduction, an achromatic synthesis is employed up to a gray tone value which corresponds to the full tone of the black printing ink employed and the color components of the chromatic printing inks are again increased proceeding from that gray tone value up to the maximum shadow in order to get desired densities in the overprint."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENNIN R. RODRIGUEZ whose telephone number is (571)270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/

Supervisory Patent Examiner, Art Unit 2625

/Lennin R Rodriguez/

Examiner, Art Unit 2625